

REMARKS

The Office Action mailed September 29, 2008 has been carefully considered. Within the Office Action Claims 17, 24, 25, 27, 32, 33 and 35-38 have been rejected. The Applicants have amended Claims 17, 24 and 32. Reconsideration in view of the following remarks is respectfully requested.

The First 35 U.S.C. § 103 Rejection

Claims 17, 24, 27, 32, and 36 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 4,907,973 to Hon in view of U.S. Patent No. 5,820,600 to Carlson et al. (hereinafter “Carlson”) and further in view of U.S. Patent No. 5,480,307 to Lang et al. (hereinafter “Lang”). This rejection is respectfully traversed.

Within the office action, it is alleged that it would be obvious to one skilled in the art to combine the surgical simulator of Hon with the neck assembly of Lang to model a real surgical procedure. In addition, it is alleged in the office action that one skilled in the art would find it obvious to have positioned the Carlson trocar assembly proximate to the neck assembly of Lang to increase the realism and accuracy of the training simulation. The Applicants respectfully disagree.

In determining obviousness four factual inquiries must be looked into in regards to determining obviousness. These are determining the scope and content of the prior art; ascertaining the differences between the prior art and the claims in issue; resolving the level of ordinary skill in the pertinent art; and evaluating evidence of secondary consideration. Graham v. John Deere, 383 U.S. 1 (1966); KSR Int'l Co. v. Teleflex, Inc., No 04-1350 (U.S. Apr. 30, 2007) (“Often, it will be necessary . . . to look into related teachings of multiple patents; the

effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an **apparent reason** to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis **should be made explicit.”** (emphasis added).

In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530 (Fed. Cir. 1983). Thus, when considering the whole prior art reference its entirety, portions that would lead away from the claimed invention must be considered. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540 (Fed. Cir. 1983), See M.P.E.P. 2141.02. Thus, it is improper to combine references where the references teach away from their combination. In re Grasselli, 713 F.2d 731 (Fed. Cir. 1983). Further, if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900 (Fed. Cir. 1984)

Hon describes a medical investigative system with which a user interacts to train in invasive or non-invasive procedures. In particular, Figures 9 and 10 which are referred to in the office action show a simulated medical instrument being inserted within a mock body.

Carlson is directed to an adjustable trocar valve which may be inserted into a patient's body during actual surgery. In particular, the trocar valve in Carlson is designed to allow different sized catheters or other tools to be inserted into the patient without having to replace the trocar.

Lang is directed to a training apparatus for simulating clinical dental processes. In particular, the apparatus has a model bust 6 attached to a head 7 via a neck 16 in which the head is swivel-mounted on a carrier 4. The head 7 is mounted on the head carrier via a ball joint 17, whereby the ball joint 17 is arranged in the neck 16. The other end of the ball joint 17 is a handle 31 which is attached to the carrier 32. (Lang, Figures 2 and 3; Col. 5, Line 31-Col. 6, Line 20). The ball joint 17 allows the head to be pivotably moved in different positions to allow the dentist to examine the mouth of the mock patient.

One skilled in the art would not be motivated to combine Hon with Carlson and Lang in reaching the claimed subject matter. Lang teaches that his device has a bust 6 upon which the neck 16 is attached. The head 7 is mounted onto the neck 16 via a ball joint 16, whereby the head 7 is able to pivot about the ball joint 16. The neck joint 16 is thus a solid member which holds the model's head up with respect to the bust 6. However, there is no hint or teaching in Lang that a hollow member could be coupled to the orifice (e.g. the model's mouth 18) and be configured to extend through at least a portion of the bracket, as recited in Claims 17, 24 and 32. The apparatus in Lang is for clinical dental processes in which the physician need only examine the mouth of the model. Therefore, there is no hint or teaching of using a sensing assembly with respect to the model in Lang. Accordingly, there would be no need for a hollow member to be used in Lang which is travels from the mouth of the model to a sensing assembly.

In addition, there is no motivation to place the hollow member through at least a portion of the bracket, as recited in Claims 17, 24 and 32. In addition, the office action makes a mental leap in stating that it would be obvious to combine Lang and Carlson with Hon without showing how the three references could be mechanically combined. In fact, combining the complex pivoting system in Lang with the sophisticated trocar in Carlson would require substantial

redesign of both Lang's and Carlson's devices to allow Carlson's trocar to correctly operate with Lang's pivoting mechanism. As stated, Carlson is directed to a trocar which allows different tools to be inserted therein, whereas Lang is directed to a pivotable head mechanism in which the mouth is examined by the dentists. Accordingly, Lang does not teach or suggest the need for a hollow member, a sensing assembly nor the ring or retainer, required in Claims 17, 24 and 32. Further, the combination of Carlson and Lang with Hon would require a substantial reconstruction and redesign of the elements shown in all three references as well as a change in the basic principle under which the Lang construction was designed to operate. *In re Ratti*, 270 F.2d 810 (CCPA 1959); see MPEP 2143(VI). For at least these reasons, one skilled in the art would have no motivation to combine Carlson and Lang with Hon to reach the claimed subject matter in Claims 17, 24 and 32.

Additionally, the combination of Hon, Carlson and Lang does not teach or suggest each and every element/limitation as required to establish a *prima facie* case of obviousness. First of all, the combination of Hon, Carlson and Lang does not teach or suggest that the at least a portion of the hollow member extends through at least a portion of the bracket, as recited in Claims 17, 24, and 32. The bracket in Lang does not support a hollow member to extend through it, nor would there be any reason to do so. In fact the bracket in Lang is a solid member and is snugly fit within the neck 16. Thus, the combination of Carlson with Lang does not teach or suggest at least a portion of the hollow member extending through at least a portion of the bracket, as recited in the claims.

Additionally, the combination of Carlson and Lang does not teach or suggest that the locking mechanism 110 is configured to prevent movement of the **mock anatomical site**, as expressly recited in Claims 17, 24 and 32. Instead, Carlson only discloses that the holding

members 110 are moveable to allow different sized tools to be inserted into the trocar. (Carlson, Col. 9. Lines 9-16). However, there is no teaching or suggestion that the combination of Carlson and Lang produces a locking mechanism configured to prevent movement of the mock anatomical site, as recited in Claims 17, 24 and 32. The office action recognizes this as it only argues that Carlson discloses a locking mechanism which prevents movement of the orifice, instead of the mock anatomical site.

Furthermore, there is no teaching or suggestion in the prior art references (nor the office action) that the combination of Carlson and Lang produces a second ring and second retainer in Claim 17. For at least these reasons, the combination of references do not teach or suggest each and every element/limitation taught in the claims. Accordingly, Claims 17, 24 and 32 are non-obvious and allowable over the cited references. Withdrawal of the rejection is respectfully requested. Claims 27 and 36 are also allowable for being based on allowable independent claims.

The Second 35 U.S.C. § 103 Rejection

Claims 25 and 33 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Hon, Carlson and Lang as applied to claims 24 and 32 and further in view of U.S. Patent No. 5,951,301 to Younker. This rejection is respectfully traversed. However, Claims 25 and 33 are allowable for being dependent on allowable base claims. Accordingly, withdrawal of the rejection is respectfully requested.

The Third 35 U.S.C. § 103 Rejection

Claim 38 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Hon, in view of Carlson and Lang, as applied to claim 17 and further in view of U.S. Patent No. 5,800,179 to Bailey. This rejection is respectfully traversed. However, Claim 38 is allowable for being dependent on an allowable base claim. Accordingly, withdrawal of the rejection is respectfully requested.

Conclusion

It is believed that this reply places the above-identified patent application into condition for allowance. Early favorable consideration of this reply is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-3557. A two month extension fee accompanies this reply.

Respectfully submitted,

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